DOCUMENT RESUME

ED 176 080 CE 022 600

AUTHOR Petersen, Anne C.; And Others
TITLE Sex Differences in Educational and Occupational Goals Among Adolescents.
PUB DATE 79
NOTE 18p.; Paper presented at the annual meeting of the American Educational Research Association (San Francisco, California, April 8, 1979); Not available in hard copy due to light print

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Attitudes; *Educational Objectives; Females; *High School Students; Males; *Occupational Aspiration; Rural Youth; *Self Concept; *Sex Differences; Sex Role; Student Characteristics; Suburban Youth
IDENTIFIERS Kaplan Peterson Attitudes toward Women Scale; Offer Self Image Questionnaire

ABSTRACT

A study was conducted to examine sex differences in educational and occupational goals among adolescents. Three questionnaires were administered to two samples of high school students. The first sample consisted of 125 students at a Midwestern rural community high school; the second sample consisted of 294 students from a large suburban high school outside a large Midwestern city. A background questionnaire obtained information about grade, age, schooling plans, parental educational attainments, parental employment, sex and ages of siblings, and career plans. The Offer Self-Image Questionnaire (OSIQ) was used as a self-descriptive personality test of adjustment. The Kaplan-Peterson Attitudes toward Women Scale was used to measure attitudes toward women's roles. Results of the study include some of the following: the aspirations of girls were not viewed as being too low; suburban and rural girls tended to have more positive attitudes than boys favoring equality of women; and of 15 items on the OSIQ thought to relate to self-image as a leader or worker, seven showed no differences between boys and girls in either community. (JH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED176080

Sex Differences in Educational and Occupational Goals Among Adolescents

Anne C. Petersen[1,2]
Maryse Richards[2]
Idy B. Gitelson[1]

[1]Michael Reese Hospital & Medical Center
[2]University of Chicago

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Anne C. Petersen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Presented in a symposium "How Do Sex Roles Influence the Selection and Development of Education Administrators?" at the Annual Meeting of the American Educational Research in San Francisco April 8, 1979.

CE019600

SESSION 3.02

During the high school years, boys and girls are forming ideas as to what they hope to do with the rest of their lives. Gender seems to be an important variable influencing both educational aspirations and career choices. In a review of the literature, Logan (1974) found that generally high school girls have lower educational goals than their male classmates, although females at this time are doing just as well or better academically than the males. These findings persist even when various ethnic and socioeconomic groups are sampled. As they mature through adolescence, girls tend to aspire to a college education frequently less and their lower educational expectations become actualized (Alexander & Eckland, 1974; Douvan & Adelson, 1966). The other variables influencing educational goals include socioeconomic status, parental encouragement, academic ability, the peer group, and teachers and high school counselors. Socioeconomic status and parental encouragement have been found to be more influential for girls, with academic ability more determining for boys (Alexander & Eckland, 1974; Kim, 1969; Sewell & Shah, 1968). Using Project Talent data, Bayer (1969) found that academic aptitude, SES, and marriage plans all affected educational aspirations, but that marriage plans were more influential for girls then boys, and that a large unexplained variance remained, leading to the conclusion that other factors needed to be considered.

The research on sex differences in career aspirations has produced more mixed results compared to research on education, although the biggest sex difference of all appears for future work. The mixed results for occupational aspirations are found mainly with American ethnic minorities. Again from Logan's review of the literature, it seems that many girls who express relatively high aspirations for themselves, when asked about their realistic future, forsee the traditional occupations of housewives and secretaries. In their nationwide study, Douvan and

Adelson (1966) found the expected pattern of sex differences with 40% of the males choosing professional jobs relative to 21% of the girls. These results are supported by other studies (Logan, 1973; Seward & Williamson, 1969).

What actually happens as these adolescent girls and boys mature? Girls consistently limit their choices and acquire the more traditional roles (Astin, 1968a; Harmon, 1971; Stephenson, 1955). Harmon (1971), interviewing freshman college women, found that as pre- adolescents they recalled having more varied and sophisticated occupational perferences than at present. At the time of the interview they had elected the typical feminine fields of work: clerical jobs and housewives. Using Project Talent data, Astin (1968b) studied girls in ninth grade and again one year after high school. There was a marked shift toward more traditional careers over that time period.

The factors that enter into career aspirations are similar to those which affect educational goals: academic ability, SES, attitudes of significant others, birth order differences, size of high school, and level of masculinity. Several studies report evidence supporting the theory that aspirations are largely based upon information received from an interaction with significant others. Haller and Woelfel (1969) as well as Mettlin (1971) found high correlations between the individual's aspirations and expectations of significant others. Mathews and Tiedeman (1964) investigated the differences in attitudes toward career and marriage during various developmental stages and reported that the two most important considerations during early adolescence are considerations of boys' reactions to the intelligence of girls and the struggle and possible position of dominance of men at work and the "place" of women at home. In a study of tenth grade girls, Houts and Entwisle (1968) found school achievement higher in girls

who considered masculine competition behavior to be appropriate to the female role as well as in those with a masculine sex role orientation. Entwisle and Greenberger (1970), studying attitudes toward women in ninth grade students, found the girls to be generally more liberal than the boys with the greatest disparity occurring around whether women should work at all. There were more differences between the middle class boys and girls then among the blue collar group. Lastly, Rezler (1961) was able to differentiate high school girl's vocation types -- pioneer or nontraditional from traditional -- through interest, personality, and academic achievement profiles.

So, past research suggests that girls typically have lower educational aspirations than boys, and that these differences increase when they become actualized. Occupational aspirations also differ by gender with evidence that attitudes taken by girls themselves as well as significant others towards the appropriate roles of women are important to these aspirations.

Methods

Sample

Two samples of high school students were available for examination of sex differences in educational and occupational goals. Data were collected at a Midwestern rural community high school in the fall of 1977. About two-thirds of the student body lived on farms outside the town of just under 8,000 people. The town and surrounding area is mainly Caucasian and middle class. These 125 students were randomly selected from the entire student body of about 1550 students in grades 9 to 12. The data were gathered for a study of self-image among rural youth (Petersen, Offer, & Kaplan, 1979) and were obtained in a single group session.

The second set of data were collected in the spring of 1978 at a large high school serving a mainly Caucasian, middle class suburb outside a large Midwestern city. These 294 students were obtained from several classes in grades 9 through 12. These data were gathered as part of a large study and testing took place over three class periods.

Instruments

Three questionnaires were administered to both samples. A background questionnaire obtained information about grade, age, schooling plans, parental educational attainments, parental employment, sex and ages of siblings, and career plans.

The Offer Self-Image Questionnaire (OSIQ) was developed as a self-descriptive personality test of adjustment (Offer, Ostrov, & Howard, 1977). It includes

130 statements with a 6-option Likert-type response scale. A total score and eleven scale scores are calculated. The scales include Impulse Control, Emotional Tone, Body and Self-Image, Social Relations, Morals, Sex Attitudes, Family Relations, External Mastery, Vocational and Educational Goals, Psychopathology, and Superior Adjustment.

The Kaplan-Petersen Attitudes Toward Women Scale (Kaplan & Petersen, in preparation) was adapted for adolescents from the short form of the Spence-Helmreich Attitudes Toward Women Scale (Spence, Helmreich, & Stapp, 1973). It includes twelve items expressing an attitude to which the respondent agrees or disagrees mildly or strongly.

Results

Educational and Occupational Goals

Table 1 shows the results by community and gender for the 2 items and 1 scale measuring educational and occupational goals. Girls in the rural school had higher educational aspirations than the boys; no sex differences are seen in the suburban school. The two communities have surprisingly similar educational aspirations. These may differ from the actual educational attainments.

Interpretation of career plans is hampered by the measurement of this variable. We would have done better to ask the aspired career and then code it. Our categories were quite ambiguous and in the case of the rural questionnaire, omitted a major career category: farming. Ignoring this problem, the results suggest that girls are more likely to chose a profession (especially suburban girls) or clerical career (especially rural girls). Few girls in either sample

selected housewife as a career choice. Boys in both samples more frequently selected a career goal in business. The "don't knows" were numerous, especially among rural boys (40.7%), perhaps due to the absence of farming as a category.

The Vocational and Educational Goals Scale on the OSIQ shows no sex-related differences within either community. Community effect was not tested for significance here but the trend is for the rural youth, especially boys, to have a poorer self image in this area.

To summarize the results of Table 1, we obtained fewer differences than expected. There is little evidence in these data that the aspirations of girls are too low. If anything, the data point to more problems among boys, especially rural boys.

Attitudes Toward Women

Table 2 compares boys and girls in the two communities on their attitudes toward women's roles. Only one item failed to differentiate boys from girls in both samples. The rural adolescents generally expressed more traditional attitudes than their suburban counterparts. Rural youth of both genders shared the belief that swearing is worse for girls than boys. Asking boys on dates tended to be more unacceptable to rural girls than boys. On all other items, girls more than boys advocated equality between the sexes.

The overall average score for positive attitudes toward women differed between boys and girls in both samples by about half a response level, and more than a standard deviation. While community differences were also consistent, with rural youth more traditional than suburban youth, this difference amounted

to only a quarter of a response level, and half a standard deviation, for both boys and girls.

To summarize the results of Table 2, suburban and rural girls tended to have more positive attitudes than boys favoring equality of women. While rural youth tended to be more traditional than their suburban counterparts, this difference was only half as large as the sex difference.

Gender Differences in Self Image

Fifteen items thought to be related to leadership and work orientation were selected from the OSIQ for individual analyses. Boys and girls were not different on most of these items. Where differences obtained, they were never replicated in both samples. But generally where significant differences existed, girls tended to have poorer self-images than boys. There were two exceptions to this generalization. Among rural youth, girls more than boys expected to be a source of pride to their parents. Among suburban youth, girls were more likely than boys to prefer working to loafing. The other differences included suburban girls having a poorer self-image as a learner, as a superior student, by feeling less talented, and more fearful of growing up. Rural girls were less likely than boys to think about future work or to take pleasure in doing a job well.

In summary, of 15 items thought to relate to self-image as a leader or worker, seven showed no difference between boys and girls in either community. Where differences obtained, however, they showed a generally negative self-image for girls. The two positive exceptions, pleasing parents and being a hard worker, also conform to the female stereotype.

Discussion

What do these results say about youth today, and the likelihood of seeing more women in positions of leadership and responsibility in our educational institutions? We do not have historical data on our measures so we cannot comment on any possible trends. Similarly, we have not measured societal variables such as extent of discrimination, subtle or direct. We have presented data on the educational and occupational plans, self-image, and attitudes towards womens roles of two different samples of high school youth.

The overall pattern suggest that girls compared to boys express generally higher aspirations, clearly more egalitarian attitudes toward women's roles, but somewhat less positive self-image. Recalling the research reviewed earlier, we might speculate about the effect of the less egalitarian attitudes of boys on the aspirations of girls. This factor, together with lower self-image of girls, might influence a discrepancy between the plans of high school girls and their actual accomplishments. We would need longitudinal data to study this possibility.

So our data provide good news and bad news. Girls are aiming high but could feel more positive toward themselves. And high school boys, like older males, have not given up their attitudes about "male privilege".

References

Alexander, K. L. & Eckland, K. Sex differences in the educational attainment process. American Sociological Review, 1974, 39, 668-682.

Astin, S. Career development of girls during the high school years. Journal of Counseling Psychology, 1968a, 15, 536-540.

Astin, S. Stability and change in the career plans of ninth grade girls. Personnel and Guidance Journal, 1968b, 46, 961-966.

Bayer, A.E. Marriage plans and educational aspirations. American Journal of Sociology, 1969, 75, 239-244.

Douvan, E. & Adelson, J. The adolescent experience. New York: Wiley, 1966.

Entwisle, R. & Greenberger, E. A survey of cognitive styles in Maryland's ninth graders:4 views of Women's roles. The Johns Hopkins University, Center for the study of Social Organization of Schools, Report No 89, Baltimore, Md: Johns Hopkins University Press, 1970, 26 pages.

Haller, A.O. & Woelfel, J. The Wisconsin Significant Other Battery. U.S. office of Education Final Report, 1969.

Harmon, L.W. The childhood and adolescent career plans of college women. Journal of Vocational Behavior, 1971, 1, 45-56.

Houts, P. & Entwisle, D.R. Academic achievement effort among females: Achieve-

ment attitudes and sex role orientation. Journal of Counseling Psychology, 1968, 15, 284-286.

Kaplan, E. & Petersen, A. The Kaplan-Petersen Attitudes toward Women Scale for Adolescents, in preparation.

Kim, K.H. The social context of occupational and educational mobility aspirations of Negro adolescents. (Doctoral Dissertation, University of Maryland) Ann Arbor, Mich: University Microfilms, 1969, No. 69-8047.

Logan, D.D. The effect of teacher reinforcement on the achievement motivation of high school students. Unpublished master's thesis, University of California, Berkeley, 1973.

Logan, D. Sex differences in adolescents' goals and expectations: Some implications for educators. Unpublished manuscript, 1974.

Mathews, E. & Tiedeman, D.V. Attitudes toward career and marriage and the development of life style in young women. Journal of Counseling Psychology, 1964, 11, 375-385.

Mettlin, C.J. Assessing the effects of interpersonal influence in the attitude formation process. (Doctoral Dissertation, University of Illinois) Ann Arbor, Mich: University Microfilms, 1971, No. 71-74, 871.

Offer, D., Ostrov, E. & Howard, K.I. The Offer Self-Image Questionnaire for Adolescents (Revised). Chicago: author, 1977.

Petersen, A.C., Offer, D. & Kaplan, E. The self-image of rural adolescent girls. In M. Sugar (Ed.), Female adolescent development. New York: Brunner/Mazel, 1979.

Rezler, A.G. Characteristics of high school girls choosing traditional or pioneer vocations. Personnel and Guidance Journal, 1967, 45, 659-665.

Seward, G.H. & Williamson, R.C. A cross-national study of adolescent professional goals. Human Development, 1969, 12, 248.

Sewell, W.H. & Shah, Y.P. Social class, parental encouragement and educational aspirations. American Journal of Sociology, 1968, 73, 559.

Spence, J.T., Helmreich, R. & Stapp, J. A short version of the Attitudes toward Women Scale (AWS). Bullentin of the Psychonomic Society, 1973, 2, 219-220.

Stephenson, R.M. Occupational aspirations of 443 ninth graders. Journal of Educational Research, 1955, 49, 27.

Table 1

Educational and Occupational Goals
by Sex and Community

Schooling Plans[1]

	Rural		Suburban	
	Male	Female	Male	Female
	n=58	n=64	n=107	n=166
Some high school	—[2]	—[2]	1.9	3.6
Finish high school	34.5%	15.6%	34.6%	23.5%
Non-college training	25.9%	23.4%	9.3%	10.8%
Some college	5.2%	20.3%	21.5%	31.9%
Finish college	24.1%	32.8%	23.4%	22.3%
Graduate school	10.3%	7.8%	9.3%	7.8%
	X^2=10.8 (p=.03)		X^2=6.4 (ns)	

Career Plans

	Rural		Suburban	
	Male	Female	Male	Female
	n=59	n=63	n=101	n=155
Profession[3]	32.2%	36.5%	38.6%	50.3%
Business	27.1%	17.5%	22.8%	12.9%
Technical	—[2]	—[2]	8.9%	5.2%
Clerical	0.0%	14.3%	1.0%	7.1%
Housewife	0.0%	4.8%	0.0%	0.6%
Don't know	40.7%	27.0%	9.9%	13.5%
Other	—[2]	—[2]	18.8%	10.3%
	X^2=15.1 (p=.01)		X^2=16.1 (p=.01)	

OSIQ[4] Vocational/Educational Goals
Means (Standard Deviations)

	Rural		Suburban	
	Male	Female	Male	Female
	n=60	n=65	n=113	n=181
	2.25 (.70)	2.11 (.57)	1.96 (.56)	1.95 (.57)
	F=0.8 (ns)		F=0.0 (ns)	

[1]"How much schooling do you now plan to get? (Circle the number above the highest level.)"

[2]" — " means not offered as a category

[3]In the rural data two categories are combined: "Profession (doctor, lawyer, etc)" and "Teaching or other service". In the suburban data the category read "Profession (doctor, lawyer, scientist, teacher, social worker)"

[4]Offer Self-Image Questionnaire; a higher score means poorer self-image (range: 1 to 6)

Table 2

Attitudes Toward Women[1] by Sex and Community

Abbreviated Item	Rural		Suburban	
	Males n=60	Females n=65	Males n=106	Females n=168
1. Swearing worse for girls than boys	1.95 (1.02)	2.08 (0.91) ns	2.29 (0.86)	2.63 (1.01) ****
2. Boys should pay all expenses on dates	1.72 (0.85)	2.22 (0.94) **	1.82 (0.82)	2.45 (0.91) ****
3. Special attentions to women are old fashioned and should be stopped	2.70 (1.01)	2.72 (0.93) ns	2.86 (0.82)	2.80 (0.81) ns
4. Sons more than daughters should be encouraged to go to college	2.72 (1.04)	3.28 (0.99) **	3.09 (1.00)	3.49 (0.87) ***
5. Playing rough sports OK for girls	2.22 (1.18)	1.51 (0.69) ****	2.43 (0.99)	1.56 (0.70) ****
6. Father should have greater authority than mother in family decisions	2.25 (1.07)	2.86 (1.03) ***	2.70 (1.08)	3.29 (0.88) ****
7. OK for girls to ask boys for dates	2.10 (1.07)	2.51 (1.17) *	1.73 (0.71)	1.89 (0.76) ns
8. More important for boys than girls to do well in school	2.67 (1.05)	3.45 (0.90) ****	3.20 (0.87)	3.63 (0.67) ****
9. Husband should share housework if both spouses work	2.22 (0.99)	1.65 (0.80) ***	2.12 (0.90)	1.60 (0.72) ****
10. Boys better leaders than girls	2.12 (1.09)	3.29 (0.95) ****	2.41 (1.03)	3.64 (0.59) ****
11. Girls should be more concerned with domestic than career orientation	2.28 (0.99)	3.25 (1.00) ****	3.03 (0.83)	3.59 (0.69) ****

Table 2

	Rural		Suburban	
	Males	Females	Males	Females
	n=60	n=65	n=106	n=168
12. Girls should have some freedoms as boys	2.13 (1.07)	1.29 (0.55) ****	1.82 (0.81)	1.23 (0.56) ****
Average Score	2.44 (0.40)	2.98 (0.45) ****	2.71 (0.48)	3.22 (0.41) ****

[1]Means (standard deviations) on Kaplan-Petersen Attitudes Toward Women Scale (Kaplan & Petersen, in preparation); 1=agree strongly, 2=agree mildly, 3=disagree mildly, 4=disagree strongly

**** $P < .0001$
*** $P < .001$
** $P < .01$
* $P < .05$

Table 3

Sex Differences on[1] Selected Self-Image Items by Community

Item	Rural	Suburban
1. I think that I will be a source of pride to my parents in the future.	F better self-image	ns
2. I feel that working is too much responsibility for me.	ns	ns
3. If I put my mind to it, I can learn almost anything.	ns	F poorer self-image
4. I am a superior student in school.	ns	F poorer self-image
5. I would rather sit around and loaf than work.	ns	F better self-image
6. At times I think about what kind of work I will do in the future.	F poorer self image	ns
7. A job well-done gives me pleasure.	F poorer self-image	ns
8. When I decide to do something I do it.	ns	ns
9. Whenever I fail in something, I try to find out what I can do in order to avoid another failure.	ns	ns
10. At times I feel like a leader and feel that other kids can learn from me.	ns	ns
11. I feel that I am able to make decisions.	ns	ns
12. I feel that I have no talent whatsoever.	ns	F poorer self-image

Table 3
(cont)

Items	Rural	Suburban
13. School and studying mean very little to me.	ns	ns
14. Dealing with new intellectual subjects is a challenge for me.	ns	ns
15. I am fearful of growing up.	ns	F poorer self-image

[1] for $p < .05$